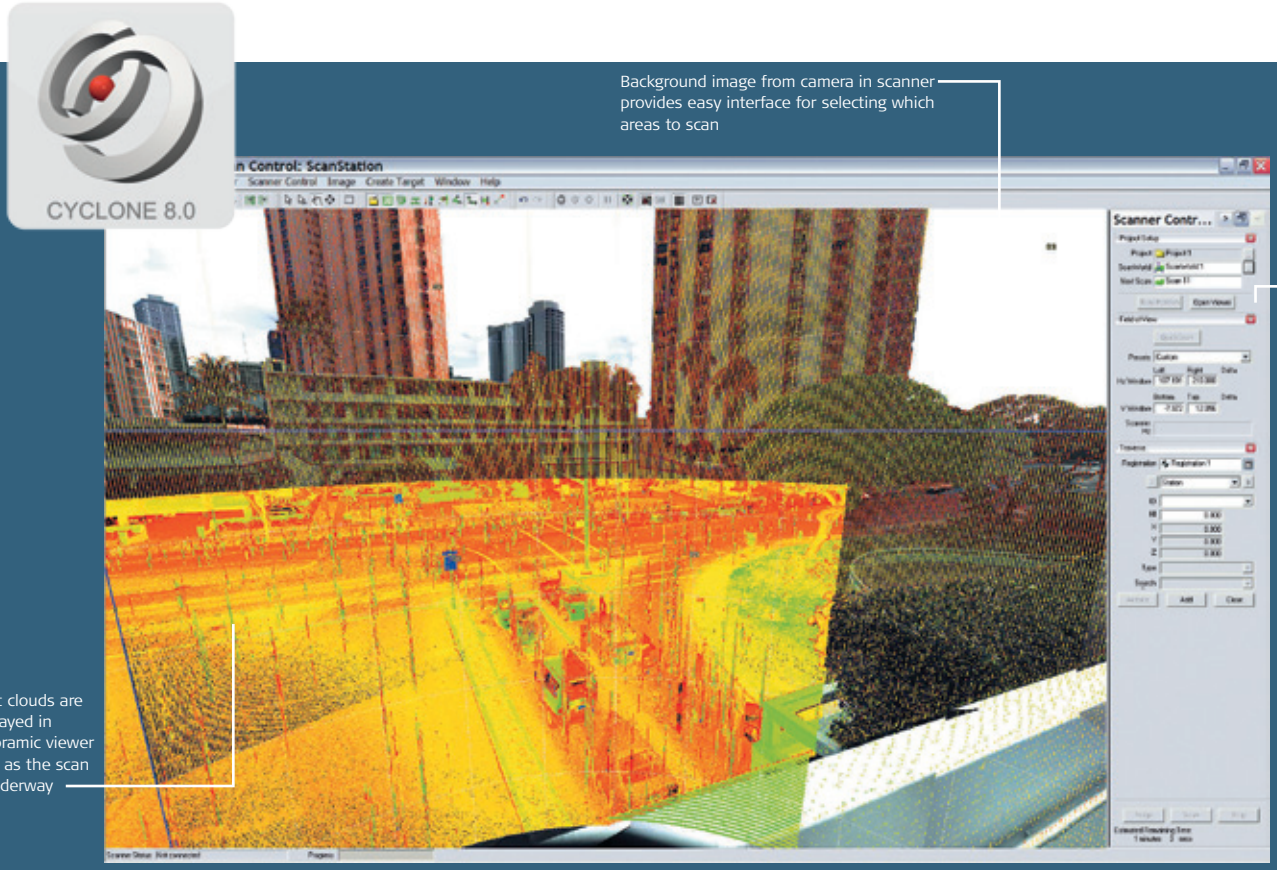
Leica Cyclone SCAN 8.0

Versatile, Powerful Laser Scanner Control Software



Easy-to-learn software optimises High-Definition Survey™ projects

Leica Cyclone SCAN is versatile, easy-to-learn laser scanner control software that optimises High-Definition Survey™ projects.

Cyclone SCAN gives Leica Geosystems HDS scanner operators unmatched scan control and multiple workflow options. Users enjoy greater flexibility in managing a wide range of site logistics and project requirements, all with renowned Leica accuracy.

Cyclone SCAN operates time-of-flight and phase-based Leica Geosystems scanners. Scanner-specific features let users get the most out of each type of scanner. Users can take advantage of workflows like traversing, setting up over a known point, and resectioning; full-dome scanning; applying internal or external camera images; wireless and unattended operation; and, a wealth of field QA tools. Cyclone SCAN features also speed office processing and reduce file sizes.

Features and Benefits

- SmartScan Technology™
- Field geo-reference and auto-register*
- Auto target recognise/extract/re-check
- Check scans against independent control
- Field QA checks of targets, features
- Traverse, resection, set-out, point*
- Auto-calibrate and apply images to scans*
- X-function, LandXML, ASCII

* Some features are scanner dependent

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Leica Geosystems

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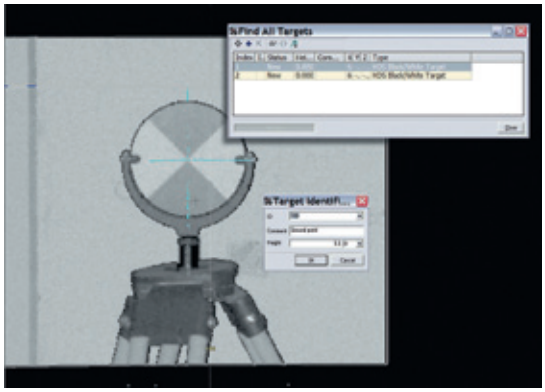

Automated routines can find all candidate targets in the scene. Once the first target is found by the search algorithm users can easily acquire the exact center point and name targets, even while the system searches for more targets.

Leica Cyclone SCAN can operate the following time-of-flight and phase based Leica Geosystems scanners: HDS2500, HDS3000, HDS4500, HDS6000, HDS6200, HDS6100, HDS6200, HDS7000, ScanStation, ScanStation 2 and ScanStation C10.

High Field Efficiency and Comprehensive Control

Leica Cyclone SCAN provides high productivity and great scanner control. SmartScan Technology™ provides fully adjustable, horizontal and vertical scan density control. Traditional traverse methods are supported including side shots. Traverse editor supports non-sequential station set ups, and full reconfiguring and management of traverse data in the field and office. Scripting allows different parts of a scene to be automatically scanned at different scan densities. Targets are recognised and extracted.

Efficiency in the Office

Various scan filters can automatically exclude capture of scan data that is outside of the desired scan area, not accurate enough due to excessive range, etc. Convenient target ID's, internal, automatically calibrated high-resolution camera images* and automatic linking of scans with images* are all additional handy aids for speeding office processing. Cyclone SCAN's support of "tilt sensor enabled" field methods can even produce automatically registered point clouds as they're collected in the field.

Ensuring Leica Geosystems Accuracy

To ensure proper scan coverage and density, scans can be viewed on a laptop in the field. Users can check scan data against elevation data collected by other methods. Scan targets can be extracted and registered/geo-referenced in the field and control point data and coordinates can be imported and exported. Scanners with dual-axis tilt sensing can be monitored to ensure level accuracy, while traverse closure reports and other standard reports for resection, set up over known point, and backsight provide valuable QA data analysis.

Easy to Learn

It's easy to select desired scan areas from rectified, high-resolution camera images or a quick "preview scan". Integrating HDS data with data from Leica's TPS and GPS 1200 series is fully supported via X-function while other instruments are supported via standard LandXML or ASCII formats.

Leica Cyclone SCAN 8.0 Specifications*	
Controls	Vertical & horizontal scan density control Scripting capability for automatic sequencing of scans
Workflow	Automatic target acquisition, Traverse & Resection
Control data	Auto compare control data to scan data In-field data geo-referencing
Camera	Acquire and display digital image (scanner with internal or external camera)
Viewing	Full 3D fly, pan, zoom, rotate; panoramic, full-dome viewing options Control color mapping using intensity, true-color, gray scale, color by elevation, etc.
Hardware	Calibration check, Dual Axis Compensator management Control of: Leica HDS2500 and HDS3000 HDS4500, HDS6000, HDS6100, HDS6200, HDS7000, Leica ScanStation, ScanStation 2 and ScanStation C10
Import	Data from CAD via COE (Cyclone Object Exchange) Control data from ASCII formats & X-Function DBX
Export	Point data in standard formats: XYZ, PTS, PTX, DXF, X-Function DBX, Land XML, etc. Point data in special formats: PTZ, ZFS, TOPO pci & cwf Image and model data: COE, BMP, JPEG, TIFF

Hardware and System Requirements
Minimum Specifications
Processor: 2 GHz Dual Core processor or better
RAM: 2 GB (4 GB for Windows Vista or Windows7)
Hard Disk: 40 GB
Display: SVGA or OpenGL accelerated graphics card (with latest drivers)
Operating system: Windows XP (SP2 or higher) (32 or 64), Microsoft Vista ** or Windows7 (32 or 64)
File System: NTFS
Recommended Specifications
Processor: 2.5 GHz Dual Quad Core i7 or higher
RAM: 4 GB for 32 bit OS and 8 GB's or more 64 bit OS
Hard Disk: 1 TB SATA
Large project disk option: RAID 5, 7, or 10 with SSD drives
Display: Nvidia GeForce250 or ATI 6850 or better, with at least 1 GB memory
Operating system: Microsoft Windows7 64 bit
File System: NTFS

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* Reference the Leica Cyclone 8.0 Technical Specifications document for a complete listing of product specifications.

** Some systems may not support Windows Vista's Desktop Windows Manager (DWM) with Leica Cyclone and must be operated in Windows Classic Look.

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www.leica-geosystems.com/hds

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